SUMMARY

The Environmental Restoration (ER) Work Breakdown Structure (WBS), Section 1.6, consists of the following: WBS 1.6.1, Remedial Action [which includes Project Baseline Summaries (PBS) ER01 - 100 Area Source Remedial Action, PBS ER02 - 200 Area Source Remedial Action, PBS ER03 - 300 Area Source Remedial Action, and PBS ER08 - Groundwater Management]; WBS 1.6.2, Decontamination and Decommissioning [which includes PBS ER05 - Surveillance and Maintenance, PBS ER06 – Decommissioning Projects]; WBS 1.6.3, PBS ER10 - Program Management and Support; WBS 1.6.4, PBS ER07 - Long-term Surveillance and Maintenance; and WBS 1.6.6, PBS ER04 - Environmental Restoration Disposal Facility (ERDF).

Good progress was made in all areas of Environmental Restoration (ER) Project activities during November.

Remediation work proceeded at the 100 B/C, D, F, H, and 300 Areas. Development of the Scope of Work (SOW) proceeded for the 100 B/C 11 small waste sites' backfill activities. Backfill of the 11 sites is scheduled to be completed this winter.

Closeout/verification sampling of completed excavation areas continued in the D Area. Excavation of two waste sites, 116-D-2 Fuel Storage Basin Trench and 116-D-9 Crib, was completed ahead of schedule.

The design for the 100-FR-1 Operable Unit remedial actions proceeded. The draft electrical design for the air monitors, site trailers, and frisking tent was completed. Regulator reviews for the 116-F-2, 116-H-1, and 116-K-2 vadose zone characterization boreholes' data quality objective (DQO) process were completed.

Excavation of the 1607-H-2 and 1607-H-4 Septic Drain Field waste sites was completed as originally planned. Closeout/verification sampling will be performed over the next few weeks to determine if further excavation may be required due to possible elevated chemical levels in the soil. H Area pipeline removal activities proceeded, including asbestos abatement, pipe cutting, demolition of concrete encasements, and loadout of debris.

The Decisional Draft of the *100 Area Burial Grounds Proposed Plan* was completed for review/approval on November 12. The document identifies the preferred alternative of remove, treat, and dispose for the 45 burial grounds in the 100 Areas. Development of the Draft A *Focused Feasibility Study* (FFS*) and Proposed Plan* was initiated on November 29, which resolved comments from the decisional draft review.

A second draft of the *Auditable Safety Analysis/Final Hazard Classification* (ASA/FHC) report, in support of remedial action at 116-N-3 Crib, was submitted to RL on November 29.

Additional plumes of contaminated soil have been discovered in the 300 Area South Process Pond site. As a result, an estimated additional 30,528 metric tons (33,652 tons) of waste will be excavated and shipped to the Environmental Restoration Disposal Facility (ERDF) for disposal.
Mobilization activities were started for excavation of wastes from Landfill 1A and Landfill 1B in the 300 Area. This work will be done in Level B personal protective equipment (supplied air respirators) and will commence in December.

A report was received from the subcontractor regarding the staged vitrification treatability test that was conducted at the 300 Area in August. An in-situ vitrification process was used to melt a small can of depleted uranium chips and oil wastes into a glass cylinder. The report concluded that staged vitrification is a viable alternative for on-site treatment of the drummed uranium chip wastes that were discovered at the 618-4 Burial Ground in 1998. A disposal option will be selected next summer, and remedial actions are scheduled to resume at the burial ground in FY01.

The Draft A *300-FF-2 Operable Unit Focused Feasibility Study* and Draft A *300-FF-2 Operable Unit Proposed Plan* were completed on November 17 and transmitted to the regulators. The FFS presents the evaluation of alternatives for the waste sites in the 300-FF-2 Operable Unit. The *Proposed Plan* identifies the preferred alternatives for remediation of these waste sites. Submittal of these documents fulfilled the requirements for meeting the *Tri-Party Agreement* Milestone M-15-23B (due November 30) and the subsequent major Milestone M-15-00B (due December 31).

In November, ERDF reached the 1,814,360 metric ton (2,000,000 ton) mark for wastes disposed since the facility began operation in July 1996. To date, 1,816,482 metric tons (2,002,339 tons) of material have been received and placed in the disposal facility.

FY00 release site performance measures include a total of 29 sites. Excavation of 2 waste sites was completed in November, for a total of 3 waste sites in FY00.

FY00 assessment performance measures include a total of 121 assessments. 76 assessments are with regard to the cleanup strategy at the 300-FF-2 Operable Unit sites. Additional 45 assessments were deferred from FY99, and are being incorporated in the *Proposed Plan* (leading to a *Record of Decision* [ROD]) for the 100 Area Burial Grounds.

The Groundwater/Vadose Zone (GW/VZ) Integration Project completed the draft software requirements specification, *Identify System Assessment Capability (SAC) Rev. 0 Requirements*, on November 15 for internal project review and approval. This product is the first, and key, section of the *Assessment Design Document for the SAC, Rev. 0*. The requirements specification includes detailed requirements for each component of the SAC, and a section devoted to items or processes not supported by the Rev. 0 capability.

The Environmental Management Science Program (EMSP) Principal Investigator Orientation meeting was held with new EMSP grantees, the GW/VZ Integration Project staff, and representatives of core projects. The process review of the soil inventory estimation methodology development was completed. The second Risk S&T Workshop was also completed.

The 100 Area regulatory path forward workshop for November was conducted with the regulators and RL. The integrated regulatory path and end-point options for Waste Group #1 (100 Area Groundwater) were developed.

The GW/VZ Project is establishing an issues management system that will be used to track and disposition GW/VZ issues. Through partnering with Pacific Northwest National Laboratory (PNNL), software and hardware were identified to support the system. The software and hardware have been transferred from PNNL to the GW/VZ Project, providing enhanced capabilities and reducing the cost of the task.

The *100-HR-3 Record of Decision (ROD) Amendment* for the In-Situ REDOX Manipulator (ISRM) technology was approved in late October. Direction was received in November to proceed with FY00 well installation procurement activities while finalizing the *Remedial Design Report and Remedial Action Work Plan* (RDR/RAWP). Well drilling is expected to begin in January.

Several long-term groundwater-monitoring reports were completed and distributed for review/approval during November.

In September, 19 additional wells were sampled near the City of Richland in response to slightly elevated tritium levels found in three wells. Sampling test results indicated tritium levels at these three wells had decreased to historical levels. One well that was added to the network had about 500-pCi/L tritium (this is 1/40 of the 20,000-pCi/L drinking water standard for tritium). These results were presented to the City of Richland, Washington State Department of Health, and RL on November 30. It was determined that the results warranted continued monitoring.

All groundwater pump and treat systems operated above planned 90% availability levels through November. Since system inception, the five pump and treat systems have processed over 3.1 billion liters of groundwater, removing 3,553 kg of tetrachloride, 145 kg of chromium, and 0.529 curies of strontium. Approximately 168 million liters of groundwater have been processed in FY00, removing approximately 149 kg of tetrachloride, 12.0 kg of chromium, and 0.029 curies of strontium.

The Decisional Draft *200-CW-5 Remedial Investigation/Feasibility Study (RI/FS) Work Plan* was completed on November 15. This document addresses remedial actions at the 200 Area 200-CW-5 U Pond and Z Ditches Cooling Water Waste Group.

Several Interim Safe Storage (ISS) project activities were completed at the F and DR Reactor areas in November. The "Guzzler" vacuum demonstration was conducted at the DR Reactor Valve Pit on November 10. After the demonstration results are evaluated, a decision will be made whether to use the Guzzler or heavy equipment to remove the fuel storage basin fill. The below-grade demolition of the F and DR Valve Pits, and the DR Fan Room Slab, was completed on November 18. The DR Valve Pit/Fan Room Slab demolition was completed three weeks ahead of schedule. Demolition debris loadout is scheduled for completion the first week of December.

The 233-S Plutonium Concentration Facility process hood *Safety Evaluation Report* comments continued to be resolved. The matting was removed from the grating in the second floor viewing room. The loadout hood de-energized electrical inspections, and installation of the separation barrier for the localized ventilation, were completed. Dismantling of the loadout hood framework and removal of electrical conduit were initiated.

Surveillance and maintenance (S&M) activities proceeded in November to ensure inactive facility integrity and safety. Submitted bids were evaluated for the construction of the new Water Treatment Plant replacement system at N Reactor. The *Waste Management Plan* was completed for the removal of legacy waste from KE and KW Reactors.

A tour was held at the Westway Liquid Cattle Feed Plant in Burbank, Washington. The ERC had successfully cleaned 5 of the 11 excessed tanks that are now in use at this plant. Many members of the Hanford Economic Transition team were in attendance, as well as DOE and other Hanford contractor personnel, who had contributed to this economic transition effort. Disposal costs were avoided by allowing public use of the tanks. This is a good example of how surplus Government equipment can be transferred to local businesses for further use, and cost savings are shared by both parties.

Support was provided in the publication of the *FY99 Waste Minimization Annual Report* which highlights Hanford's waste minimization efforts. Approximately $50M of potential cost savings were identified from the ERC.

The ER Project *Long-Range Plan* (LRP) and *Baseline* documents were completed on November 30 to meet the scheduled December 1 completion date. Deliverables included the Baseline Update (Vol. 1-3), LRP graphic, and Site/Facility completion graphics.

Two *Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement)* milestones were completed ahead of schedule in November. Milestone M-15-23B, Submit 300-FF-2 FFS and Proposed Plan for Regulator Review, (due November 30) was completed on November 22.
Milestone M-15-00B, Complete All Area Operable Unit Pre-Rod Site Investigations Under Approved Work Plan Schedules, (due December 31) was also completed on November 22.
The Milestone Achievement details, found following cost and schedule variance analysis, provide further information on all milestone types, both fiscal year-to-date and remaining scheduled. Additional details on the overdue and forecast late milestones can be found in the milestone exception report starting on page F: 14.

ACCOMPLISHMENTS

Design work for remediation of the F Reactor Area was initiated in October 1999.

A Notice to Proceed with the 100 D Area (Group 3) small waste sites' excavation was issued on October 20.

Excavation of 3 waste sites was completed during October and November.

In November, ERDF reached the 1,814,360 metric ton (2,000,000 ton) mark for wastes disposed since the facility began operation in July 1996.

The decisional draft of the *100 Area Burial Grounds Proposed Plan* was completed and forwarded for review/approval on November 12. The document identifies the preferred alternative of remove, treat, and dispose for the 45 burial grounds in the 100 Area. When finalized, the Proposed Plan will be transmitted to the regulators for a Record of Decision.

The Draft A *300-FF-2 Operable Unit Focused Feasibility Study (FFS*) and Draft A *300-FF-2 Operable Unit Proposed Plan* were completed on November 17 and transmitted to the regulators. The *FFS* presents the evaluation of alternatives for the waste sites in the 300-FF-2 Operable Unit. The *Proposed Plan* identifies the preferred alternatives for remediation of these waste sites. Submittal of these documents fulfilled the requirements for Tri-Party Agreement Milestone M-15-23B (due November 30) and the subsequent major Milestone M-15-00B (due December 31).

The 100-HR-3 Record of Decision (ROD) Amendment received regulator approval for the In Situ REDOX Manipulation (ISRM) technology in October. This will allow the implementation of ISRM technology at the100 D Area to reduce discharges of chromium-contaminated groundwater to the Columbia River.

The draft software requirements specification, *Identify System Assessment Capability (SAC), Rev, 0 Requirements*, was completed on November 15 and submitted for internal project review and approval. The requirements specification includes detailed requirements for each component of the SAC, and a section devoted to items or processes not supported by the Rev. 0 capability.

The Decisional Draft *200-CW-5 Remedial Investigation/Feasibility Study (RI/FS) Work Plan* was completed on November 15.

All five groundwater pump and treat systems operated at or above the planned 90% availability during November. Preparations are underway for shutdown of all systems on December 29, as planned, to ensure no freezing problems will occur from potential Y2K issues.

In September 19 additional wells were sampled near the City of Richland in response to slightly elevated tritium levels found in three wells. Sampling test results received in November indicated tritium levels at these three wells had decreased to historical levels.

Through partnering with Pacific Northwest National Laboratory (PNNL), a UNIX workstation and systems engineering software were transferred from PNNL to (Environmental Restoration Contract) ERC, saving approximately $65,000 to $80,000 on a new acquisition. This software will be updated and used by ERC to support the GW/VZ Zone Integration Project.

Assessment and characterization of the 224-B Plutonium Concentration Facility were initiated in October. This activity marks the first step in decommissioning of this facility.

Interim safe storage of F and DR Reactors continued. Below-grade demolition of the F and DR Reactor Valve Pits, and the DR Fan Room Slab, was completed on November 18. The DR Valve Pit/Fan Room Slab demolition was completed three weeks ahead of schedule.

COST PERFORMANCE ($M):

	BCWP	ACWP	VARIANCE
ER	$18.6	$ 15.0	+$ 3.6

At the end of November, the ER Project had performed $18.6M worth of work, at a cost of $15.0M. This accounts for a favorable cost variance of $3.6M (19.3%). The positive cost variance is attributed to FY99 year-end accrual reversals, site excavation savings, delay in national lab billing, test pit trenching costs less than planned due to efficiencies, groundwater monitoring costs less than planned, and ISS labor costs less than planned. Further information at the PBS level can be found in the following Cost Variance Analysis details.

SCHEDULE PERFORMANCE ($M):

	BCWP	BCWS	VARIANCE
ER	$18.6	$23.1	- $4.5

The ER Project is $4.5M (-19.6%) behind schedule for November. The negative schedule variance is attributed to delays in the 100 D Area small sites' verification sampling (resulting from additional plumes), mobilization at 100 F Area due to plume growth at H Area, 100 H pipeline removal, GW/VZ assessment design documentation and S&T activities, groundwater monitoring support, start of ISRM field work, and late billings for site-wide assessments. The following Schedule Variance Analysis details provide further information at the PBS level.

ISSUES

Resource Conservation and Recovery Act (RCRA) Compliance Well Funding: Capital funds for groundwater monitoring well installation will be expended in calendar year 1999. No funds are currently available for out-years. This will impact *Tri-Party Agreement* M-24-00 milestone.

> **Strategy/Status:** RL is working across all applicable Hanford Site programs to identify funding for a new well strategy in calendar year 2000. Funding sources for each facility are under review.

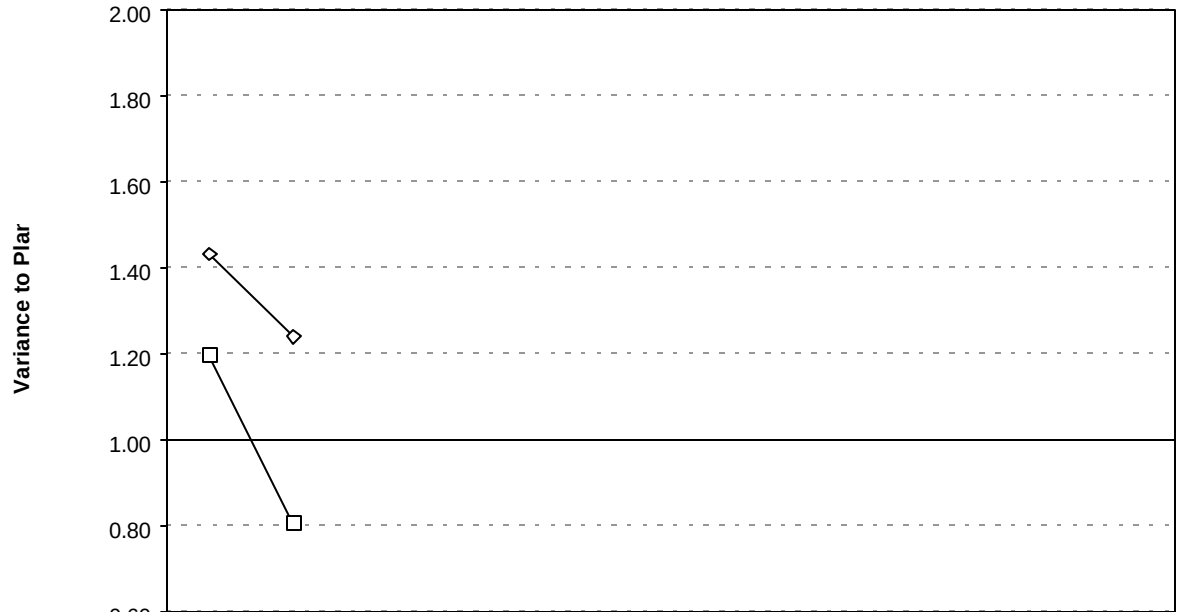
ENVIRONMENTAL RESTORATION

WBS 1.6

FY 1999 COST/SCHEDULE PERFORMANCE - ALL FUND TYPES

Cumulative to Date Status

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
FYSF												
PTS BCWS	9.8	23.1	35.8	50.7	63.1	75.4	89.3	100.8	111.7	124.5	135.2	148.4
BCWP	11.7	18.6										
ACWP	8.2	15.0										
SV	1.9	(4.5)										
CV	3.5	3.6										



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
SPI	1.20	0.80										
CPI	1.43	1.24										

ENVIRONMENTAL RESTORATION
WBS 1.6

				FYTD					AUTH	PTS
				~~BCWS~~	~~BCWP~~	~~ACWP~~	~~SV~~	~~CV~~	~~BSLN~~	~~BCWS~~
REMEDIAL ACTION										
1.6.1	100 Area Source		Expense	5.1	3.7	3.1	(1.4)	0.7	30.2	30.2
ER01			CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Subtotal 1.6.1.01		5.1	3.7	3.1	(1.4)	0.7	30.2	30.2
1.6.2	200 Area Source		Expense	1.4	1.7	1.3	0.3	0.4	4.0	4.0
ER02			CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~
		Subtotal 1.6.1.02		1.4	1.7	1.3	0.3	0.4	4.0	4.0
1.6.3	300 Area Source		Expense	1.3	1.1	0.4	(0.2)	0.8	6.5	6.5
ER03			CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Subtotal 1.6.1.03		1.3	1.1	0.4	(0.2)	0.8	6.5	6.5
1.6.4	Groundwater		Expense	4.0	2.7	2.4	(1.3)	0.3	21.3	21.3
ER08	Management		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	~~0.2~~	~~0.3~~	~~0.3~~	~~0.2~~	~~0.0~~	~~0.8~~	~~0.8~~
		Subtotal 1.6.1.08		4.2	3.1	2.7	(1.2)	0.3	22.1	22.1
REMEDIAL ACTION			Expense	11.9	9.3	7.1	(2.6)	2.2	62.0	62.0
			CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	0.2	0.3	0.3	0.2	0.0	0.8	0.8
		Total Remedial Action		12.1	9.6	7.4	(2.5)	2.2	62.8	62.8
DECONTAMINATION & DECOMMISSIONING										
1.6.5	Surveillance &		Expense	2.0	1.6	1.7	(0.4)	(0.1)	13.4	13.4
ER05	Maintenance		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Subtotal 1.6.2.05		2.0	1.6	1.7	(0.4)	(0.1)	13.4	13.4
1.6.6	Decontaminating &		Expense	2.6	2.3	2.0	(0.2)	0.3	9.1	9.1
ER06	Decommissioning		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~
		Subtotal 1.6.2.06		2.6	2.3	2.0	(0.2)	0.3	9.1	9.1
1.6.7	N-Area Deactivation		Expense	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0
ER09			CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Subtotal 1.6.2.09		0.0	0.0	(0.0)	0.0	0.0	0.0	0.0
DECONTAMINATION &			Expense	4.6	4.0	3.7	(0.6)	0.2	22.5	22.5
DECOMMISSIONING			CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~
		Total D&D		4.6	4.0	3.7	(0.6)	0.2	22.5	22.5
1.6.8	ER Prog. Mgmt. &		Expense	1.3	0.5	0.5	(0.8)	(0.1)	32.5	32.5
ER10			CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Subtotal 1.6.3.10		1.3	0.5	0.5	(0.8)	(0.1)	32.5	32.5
1.6.9	Long Term Surv. &		Expense	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0
ER07			CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~
		Subtotal 1.6.4.07		0.0	0.0	(0.0)	0.0	0.0	0.0	0.0
1.6.10	ER Disposal Facility		Expense	3.4	3.1	2.4	(0.3)	0.7	18.7	18.7
ER04			CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~
		Subtotal 1.6.6.04		3.4	3.1	2.4	(0.3)	0.7	18.7	18.7
Richland Environmental			Expense	21.2	16.9	13.8	(4.3)	3.1	135.7	135.7
Restoration			CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	0.2	0.3	0.3	0.2	0.0	0.8	0.8
	Subtotal Total ER 1.6			21.4	17.2	14.1	(4.2)	3.1	136.6	136.6
1.6.11	Site-Wide Ground-		Expense	1.7	1.3	0.8	(0.3)	0.5	11.8	11.8
VZ01	water/Vadoze Zone		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Integration Project		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Subtotal 1.6.6.04		1.7	1.3	0.8	(0.3)	0.5	11.8	11.8
Richland Environmental			Expense	~~22.9~~	~~18.2~~	~~14.6~~	~~(4.7)~~	~~3.6~~	~~147.5~~	~~147.5~~
Restoration			CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			GPP/LI	0.2	0.3	0.3	0.2	0.0	0.8	0.8
	Total ER 1.6			23.1	18.6	15.0	(4.5)	3.6	148.4	148.4

COST VARIANCE ANALYSIS (+$3.6M)

1.6.1.01/ER01 100 Area Source Remedial Action; $0.7M
Description and Cause: Contract award for 100-DR small sites less than planned; savings in 100-FR site prep and staff reductions; completed excavation at two 100-HR sites less than planned (100-HR project is behind schedule, recovery plan will require overtime that will erode a portion of the savings).
Impact: Cost underrun.
Corrective Action: Savings will be used for other environmental restoration work.

1.6.1.02/ER02 200 Area Source Remedial Action; $0.4M
Description and Cause: Gable Mountain/B Pond underrun in test pit trenching due to efficiencies from previous areas; sample management underrun due to reduction in number of samples required.
Impact: Cost underrun.
Corrective Action: Savings will be used for other environmental restoration work.

1.6.1.03/ER03 300 Area Source Remedial Action; $0.8M
Description and Cause: Management and administrative cost efficiencies; under accrual in South Process pond work.
Impact: Cost underrun.
Corrective Action: Savings will be used for other environmental restoration work.

1.6.6.04/ER04 ER Waste Disposal; $0.7M
Description and Cause: FY99 accrual reversal.
Impact: None
Corrective Action: N/A

1.6.2.05/ER05 Surveillance and Maintenance; ($0.1M)
Description and Cause: N/A
Impact: N/A
Corrective Action: N/A

1.6.2.06/ER06 Decommissioning Projects; $0.3M
Description and Cause: Reduced demolition crew by 3; reevaluation of resource needs allowed for savings in equipment and personnel support.
Impact: Underrun
Corrective Action: Savings will be used for other environmental restoration work.

COST VARIANCE ANALYSIS (+$3.6M)

1.6.4.07/ER07 Long-term Surveillance and Maintenance; $0.0M
Description and Cause: N/A
Impact: N/A
Corrective Action: N/A

1.6.1.08/ER08 Groundwater Management; $0.3M
Description and Cause: Fewer field support personnel required than planned; underrun in annual report preparation.
Impact: Underrun.
Corrective Action: Savings will be used for other environmental restoration work.

1.6.3.10/ER10 ER Program Management and Support; ($0.1M)
Description and Cause: Unplanned support to RL audit of Hanford Site Startup Readiness Verification process.
Impact: Potential overrun at yearend.
Corrective Action: Monitor account for potential trend.

1.6.6.04/VZ01 Site-Wide Groundwater/Vadose Zone Integration Project; $0.5M
Description and Cause: Delay in national laboratory billing.
Impact: None.
Corrective Action: Procedures are being established with other national laboratories for estimating monthly accruals.

SCHEDULE VARIANCE ANALYSIS (-$4.5M)

1.6.1.01/ER01 100 Area Source Remedial Action; ($1.4M)
Description and Cause: 100-DR Liquid Waste Sites backfill was not started as planned due to a change in contractor methodology for performing the work (utilizing large equipment first rather than smaller as planned); discovery of additional plumes have delayed scheduled work; 100-HR pipeline work started late due to slower than anticipated contractor mobilization.
Impact: None.
Corrective Action: DR variance will be recovered when production rates increase to that planned; the baseline workscope will be adjusted to reflect new plume growth; 100-HR pipeline contractor has added additional resources and rescheduled work sequence per recovery schedule.

1.6.1.02/ER02 200 Area Source Remedial Action; $0.3M
Description and Cause: Gable Mountain/B Pond and ditches were completed ahead of schedule (work schedule was based on historical data – efficiencies were identified to improve time required).
Impact: N/A
Corrective Action: None required.

1.6.1.03/ER03 300 Area Source Remedial Action; ($0.2M)
Description and Cause: Water line tie-ins were delayed pending incorporation of a new procedure. Sewer line contract award was deferred to optimize contractor pricing.
Impact: None; not on critical path for project completion.
Corrective Action: None required.

1.6.1.08/ER04 ER Waste Disposal; ($0.3)
Description and Cause: Variance reflects remediation sites being behind schedule (see ER01; ER03)
Impact: (see ER01; ER03)
Corrective Action: (see ER01; ER03)

1.6.2.05/ER05 Surveillance and Maintenance; ($0.4)
Description and Cause: Six weeks behind schedule on 100 Area Risk Assessment caused by a delay in submittal of the KE legacy waste management plan.
Impact: Will require baseline change.
Corrective Action: Waste Management Plan submitted; regulators were provided an update of progress; field work rescheduled to start in December.

SCHEDULE VARIANCE ANALYSIS (-$4.5M)

1.6.2.06/ER06 Decommissioning Projects; ($0.2)
Description and Cause: Loadout Hood dismantlement at 233-S delayed due to deteriorated glove bag replacement.
Impact: None
Corrective Action: Dismantlement activities were resumed in November with December completion expected.

1.6.4.07/ER07 Long-Term Surveillance and Maintenance; $0.0M
Description and Cause: N/A
Impact: N/A
Corrective Action: N/A

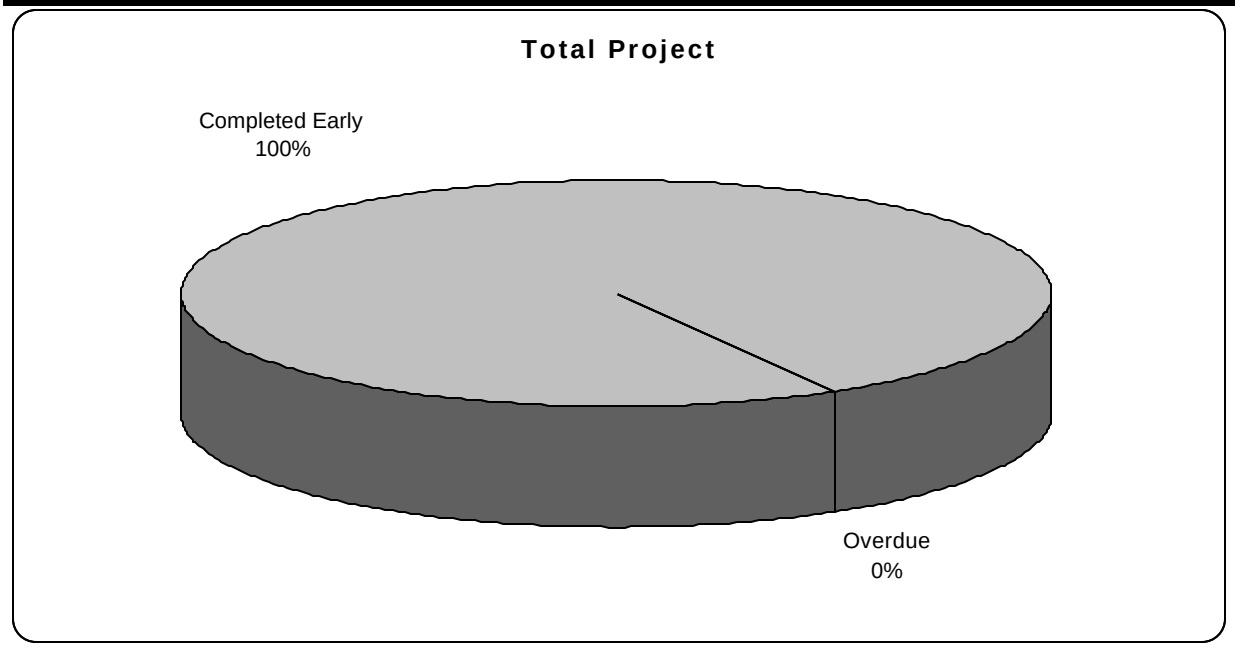
1.6.1.08/ER08 Groundwater Management; ($1.2M)
Description and Cause: Stripper tower changeout delayed until December due to equipment availability problems; In Situ REDOX work deferred pending receipt of ROD.
Impact: Stripper tower work recoverable – not on critical path; injection well installation schedule may be impacted by In Situ REDOX delay.
Corrective Action: All work will be deferred to December.

1.6.3.10/ER10 ER Program Management & Support; ($0.8M)
Description and Cause: Late billing of site-wide assessments.
Impact: None.
Corrective Action: None.

1.6.6.04/VZ01 Site-Wide Groundwater/Vadose Zone Integration Project; ($0.3M)
Description and Cause: Science and technology work delayed due to deferment of various tasks to realign schedule (major task deferred is the Transport Field Study).
Impact: Minor; schedule recoverable.
Corrective Action: Recovery schedule being implemented.

ENVIRONMENTAL RESTORATION –WBS 1.6
MILESTONE ACHIEVEMENT

MILESTONE TYPE	FISCAL YEAR-TO-DATE				REMAINING SCHEDULED			TOTAL FY 2000
	Completed Early	Completed On Schedule	Completed Late	Overdue	Forecast Early	Forecast On Schedule	Forecast Late	
Enforceable Agreement	2	0	0	0	3	10	3	18
DOE-HQ	0	0	0	0	0	0	0	0
FO	0	0	0	0	0	0	0	0
RL	0	0	0	0	0	0	0	0
Total Project	2	0	0	0	3	10	3	18



MILESTONE EXCEPTION REPORT

Number/WBS	Level	Milestone Title	Baseline Date	Forecast Date

OVERDUE – 0

FORECAST LATE – 3

M-16-13A	**EA**	Initiate Remedial Action for 100-FR-1 Operable Unit	1/31/00	3/20/00

Cause: This milestone is being impacted by plume growth at 100-HR.
Impact: Remedial action initiation will be later than originally planned at 100-FR-1.
Corrective Action: The 110-day notice for the delay in meeting this milestone was transmitted to the regulators on October 7, 1999. A formal Tri-Party Agreement change package will be submitted to the regulators in December.

M-16-07B	**EA**	Complete Remediation and Backfill of 22 Waste Sites at 100-DR	4/30/00	4/9/01

Cause: This milestone is being impacted by plume growth at 100-DR.
Impact: Remedial action workscope will be completed later than originally planned.
Corrective Action: The regulators have been verbally informed. Revised dates will be negotiated with the regulators.

M-16-26C	**EA**	Complete Remediation and Backfill of 10 Liquid Waste Sites at 100-HR	8/31/00	10/15/00

Cause: This milestone is being impacted by plume growth at 100-HR.
Impact: Remedial action workscope will be completed later than originally planned.
Corrective Action: The 110-day notice for the delay in meeting this milestone was transmitted to the regulators on October 7, 1999. A formal Tri-Party Agreement change package will be submitted to the regulators in December.